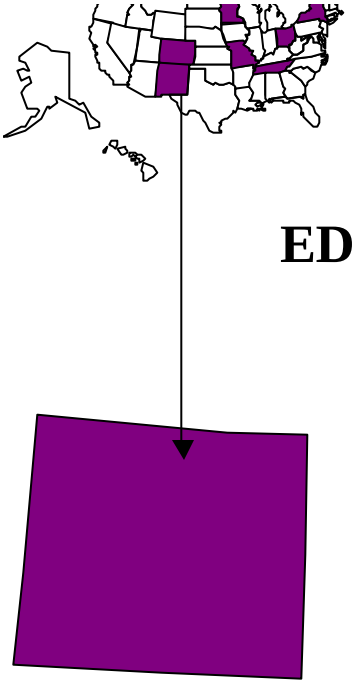

THE HEALTH CARE WORKFORCE IN EIGHT STATES: EDUCATION, PRACTICE AND POLICY

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COLORADO

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The Health Care Workforce in Eight States: Education, Practice and Policy

PROJECT DESCRIPTION

Historically, both federal and state governments have had a role in developing policy to shape the health care workforce. The need for government involvement in this area persists as the private market typically fails to distribute the health workforce to medically underserved and uninsured areas, provide adequate information and analysis on the nature of the workforce, improve the racial and ethnic cultural diversity and cultural competence of the workforce, promote adequate dental health of children, and assess the quality of education and practice.

It is widely agreed that the greatest opportunities for influencing the various environments affecting the health workforce lie within state governments. States are the key actors in shaping these environments, as they are responsible for:

- financing and governing health professions education;
- licensing and regulating health professions practice and private health insurance;
- purchasing services and paying providers under the Medicaid program; and
- designing a variety of subsidy and regulatory programs providing incentives for health professionals to choose certain specialties and practice locations.

Key decision-makers in workforce policy within states and the federal government are eager to learn from each other. This initiative to compile in-depth assessments of the health workforce in 8 states is an important means of insuring that states and the federal government are able to effectively share information on various state workforce data, issues, influences and policies.

Products of this study include individual health workforce assessments for each of the eight states and a single assessment that compares various data and influences across the eight states. In general, each state assessment provides the following:

1) A summary of health workforce data, available resources and a description of the extent the state invests in collecting workforce data. [Part of this information has been provided by the Bureau of Health Professions];
2) A description of various issues and influences affecting the health workforce, including the state's legislative and regulatory history and its current programs, financing and policies affecting health professions education, service placement and reimbursement, planning and monitoring, and licensure/regulation;
3) An assessment of the state's internal capacity and existing strategies for addressing the above workforce issues and influences; and
4) An analysis of the policy implications of the state's current workforce data, issues, capacity and strategies.

The development of the project's data assimilation strategy, content and structure was guided by an expert advisory panel. Members of the advisory panel included both experts in state workforce policy (i.e., workforce planners, researchers and educators) and, more broadly, influential state health policymakers (i.e., state legislative staff, health department officials). The advisory panel has helped to ensure the workforce assessments have an appropriate content and effective format for dissemination and use by both state policymakers and workforce experts/officials.

STUDY METHODOLOGY

Study Purpose and Audience

Key decision-makers in workforce policy within states and the federal government are eager to learn from each other. Because states increasingly are being looked to by the federal government and others as proving grounds for successful health care reform initiatives, new and dynamic mechanisms for sharing innovative and effective state workforce strategies between states and with the federal government must be implemented in a more frequent and far reaching manner. This initiative to compile comprehensive capacity assessments of the health workforce in 8 states is an important means of insuring that states and the federal government are able to effectively share information on various state workforce data, issues and influences.

Each state workforce assessment report is not intended to be voluminous; rather, information is presented in a concise, easy-to-read format that is clearly applicable and easily digestible by busy state policymakers as well as by workforce planners, researchers, educators and regulators.

Selection of States

NCSL, with input from HRSA staff, developed a methodology for identifying and selecting 8 states to assess their health workforce capacity. The methodology included, but was not limited to, using the following criteria:

a. States with limited as well as substantial involvement in one or more of the following areas: statewide health workforce planning, monitoring, policymaking and research;
b. States with presence of unique or especially challenging health workforce concerns or issues requiring policy attention;
c. States with little involvement in assessing health workforce capacity despite the presence of unique or especially challenging health workforce concerns or issues requiring policy attention;
d. Distribution of states across Department of Health and Human Services regions;
e. States with Bureau of Health Professions (BHPr) - supported centers for health workforce research and distribution studies;
f. States with primarily urban and primarily rural health workforce requirements; and
g. States in attendance at BHPr workforce planning workshops or states that generally have interest in workforce modeling.

Collection of Data

NCSL used various means of collecting information for this study. Methods exercised included:

a. Phone and mail interviews with state higher education, professions regulation, and recruitment/retention program officials;
b. Custom data tabulations by national professional trade associations and others (i.e., Quality Resource Systems, Inc.; Johns Hopkins University School of Public Health) with access to national data bases;
c. Tabulations of data from the most recent edition of federal and state government databases (e.g., National Health Service Corps field strength);
d. Site visit interviews with various officials in the ten profile states;
e. Personal phone conversations with other various state and federal government officials;
f. Most recently available secondary data sources from printed and online reports, journal articles, etc.; and
g. Comments and guidance from members of the study's expert advisory panel.

STATE SUMMARY

Colorado's population is rapidly becoming urban and more minority in composition. The percent of children without health insurance is rising and is now above the national average. Perhaps related to this trend, the percent of the population that resides in federally designated health professional shortage areas (HPSAs) is below the U.S. average. The ratio of National Health Service Corps professionals per 10,000 population living in the state's HPSAs exceeds the national average, as does the state's number of physicians, nurse practitioners, dentists, and dental hygienists per 100,000 total population.

Before the 2001 legislative session, the state had not in recent years addressed health workforce issues in a significant way. In 2001, a new law allows physicians and hospitals to establish their own networks to provide health coverage and bypass insurance companies. Also, various telemedicine services are now reimbursable under the state's Medicaid programs, which states that no health benefit plan pertaining to individuals residing in counties with fewer than 150,000 population may require face-to-face provider to patient contact, but instead such care can appropriately be delivered through telemedicine if the county has the necessary technology. Also important to improving provider availability in rural areas, the legislature in 2001 amended the allowable tax credit for health professionals practicing in rural HPSAs to alter the rural underserved definition and expand the number of eligible health professionals to include dentists and dental hygienists. A 2002 bill would make such a tax credit permanent and would expand further the list of eligible health professionals to include registered and licensed practical nurses and pharmacists.

Health workforce shortage issues are now an important concern for the legislature. Health care in general is likely to be debated often in the 2002 election for governor. However, growing fiscal constraints are likely to limit the state's actions to address the workforce shortage issue.

As in other states, Colorado is experiencing a growing shortage of practicing nurses in both its rural and urban areas. Beginning in 1999, HealthONE Alliance, a non-profit partner in metro Denver's largest hospital system, convened a collaborative group of statewide health care stakeholders, including the state hospital and nursing associations, to examine the state's nursing workforce supply. In 2001, the Alliance agreed to fund in 2002 the creation of a statewide nursing center of excellence that would serve as a central clearinghouse for workforce data, best practices and career development information. Other major activities to address nurse shortage concerns involve the state hospital association, the Colorado Area Health Education Centers, the University of Colorado, and the state nurses association.

Recent surveys of practicing dentists and dental hygienists indicate a growing number of dentists are nearing retirement, particularly in rural communities. At least 11 counties in the state now lack a dentist. Significant attention has been given in recent years to addressing rising concerns about a lack of access to dental care in Colorado, particularly in the state's rural and underserved communities. In 2001, the Legislature created a dental loan repayment program to encourage and recruit new dentists to provide service to underserved populations. An appropriation of $200,000 in tobacco settlement funds was made to fund the new program beginning in April 2002. Also in 2001, a law was enacted that authorizes services provided by hygienists to children without the supervision of a licensed dentist to be covered by Medicaid and with payment to be made directly to the hygienist. Such independent practice of a hygienist has been allowed under their practice act for about 15 years.

I. WORKFORCE SUPPLY AND DEMAND

Arguably, it is most important initially to understand the marketplace for a state's health care workforce. How many health professionals are in practice statewide and in medically underserved communities? What are the demographics of the population served? How is health care organized and paid for in the state? This section attempts to answer some of these questions by presenting state-level data collected from various sources.

Table I-a.

POPULATION		CO	U.S.
Total Population (2000)		**4,301,261**	281,421,906
Sex (2000)	% Female	**49.6**	50.9
	% Male	**50.4**	49.1
Age (2000)	% less than 18	**25.6**	25.7
	% 18-64	**64.7**	61.9
	% 65 or over	**9.7**	12.4
% Minority/Ethnic (1997-99)		**22.0**	29.1
% Metropolitan (2000)*		**81.1**	79.9

* As defined by the U.S. Office of Management and Budget

Sources: U.S. Census Bureau, AARP.

Although more than 80% of Colorado residents live in metropolitan areas, less than a quarter of the state's population are minorities.

Table I-b.

PROFESSION UTILIZATION	CO	U.S.
% Adults who Reported Having Routine Physical Exam Within Past Two Years (1997)	**80.0**	83.2 (Median)
Average # of Retail Prescription Drugs per Resident (1999)	**8.0**	9.8
% Adults who Made Dental Visit in Preceding Year by Annual Family Income (1999):		
Less than $15,000	**43**	
$15,000 - $34,999	**56**	
$ 35,000 or more	**73**	

Sources: CDC, AARP, GAO.

Less than half of Colorado families with an annual family income under $15,000 visited a dentist in the previous year.

Table I-c.

ACCESS TO CARE		CO	U.S.
% Non-elderly (under age 65) Without Health Insurance	1999-2000	**16**	16.0
	1997-1999	**17**	18.0
% Children Without Health Insurance	1999-2000	**15**	12.0
	1997-1999	**14**	14.0
% Not Obtaining Health Care Due to Cost (2000)		**10.0**	9.9
% Living in Primary Care HPSA (2001)		**15.8**	19.9
# Practitioners Needed to Remove Primary Care HPSA Designation (2001)		**101**	--
% Living in Dental HPSA (2001)*		**4.8**	13.7
# Practitioners Needed to Remove Dental HPSA Designation (2001)		**36**	--

HPSA = Health Professional Shortage Area
* It is commonly believed that there are additional areas in the state that may be eligible to receive HPSA designation.

Sources: KFF, AARP, BPHC-DSD.

Colorado has a higher proportion of children who are uninsured than the U.S average. However, compared to the U.S. as a whole, Colorado has a lower proportion of persons living in primary care and dental HPSAs.

Table I-d.

PROFESSIONS SUPPLY				
Profession		**# Active Practitioners**	**# Active Practitioners per 100,000 Population**	
			CO	**U.S.**
Physicians (1998)		**7,983**	**201**	198
Physician Assistants (1999)		**665**	**7.5**	10.4
Nurses	RNs (2000)	**31,695**	**737**	782
	LPNs (1998)	**6,350**	**160**	249.3
	CNMs (2000)	**147**	**3.5**	2.1
	NPs (1998)	**1,900**	**47.9**	26.3
	CRNAs (1997)	**184**	**4.7**	8.6
Pharmacists (1998)		**2,430**	**61.2**	65.9
Dentists (1998)		**2,242**	**56.5**	48.4
Dental Hygienists (1998)		**2,420**	**61.1**	52.1
% Physicians Practicing Primary Care			**30** (30.0 U.S.)	
% Registered Nurses Employed in Nursing			**79.1** (81.7 U.S.)	
% of MDs Who Are International Medical Graduates (IMGs)			**6.0** (24.0 U.S.)	

RN= Registered Nurse, LPN= Licensed Practical Nurse, CNM= Certified Nurse Midwife, NP= Nurse Practitioner
CRNA= Certified Registered Nurse Anesthetist

Source: HRSA-BHPr.

Colorado has more nurse practitioners and certified nurse midwives per 100,000 population than the U.S. as a whole. Only 6% of physicians in the state are international medical graduates.

Table I-e.

NATIONAL HEALTH SERVICE CORPS (NHSC) FIELD STRENGTH			
Total Field Strength (FY 2001) * Includes mental/behavioral health officials	% in Urban Areas	% in Rural Areas	# Per 10,000 Population Living in HPSAs
50	**46**	**54**	**0.73** (0.49 U.S.)

Field Strength by Profession	
Physicians	**27**
Nurses	**11**
Physician Assistants	**7**
Dentists/Hygienists	**5**

HPSA= Health Professional Shortage Area

Source: BHPr-NHSC.

Colorado has more NHSC professionals per 10,000 population in HPSAs than the national average.

Table I-f.

MANAGED CARE				
Penetration Rate of Commercial and Medicaid HMOs (as % of total population), 2000			**CO**	**U.S.**
			36.0	28.1
Profession	MCOs required by state to include profession on their provider panel*	Profession allowed by state to serve as primary care provider in MCOs	Profession allowed by state to coordinate primary care as part of a standing referral	Profession allowed by state to engage in collective bargaining with MCOs
Physicians	**No**	**No**	**No**	**No**
Nurses	**No**	**No**	**No**	**No**
Pharmacies	**No**	**No**	**No**	**No**
Dentists	**No**	**No**	**No**	**No**
State requires certain individuals enrolled in MCOs to have direct access to certain specialty (OB/GYN, etc.) providers.				**Yes**
State requires certain individuals enrolled in MCOs to receive a standing referral to a specialist (OB/GYN, etc.).				**Yes**

MCOs = Managed Care Organizations HMOs = Health Maintenance Organizations OB/GYN = Obstetrician/Gynecologist
* This requirement does not preclude MCOs from including additional professions on their provider panels.

Sources: HPTS, AARP.

Colorado has a higher HMO penetration rate than the U.S. average.

Table I-g.

REIMBURSEMENT OF SERVICES					
Medicaid	Profession	% Active Practitioners Enrolled	% Enrolled Receiving Annual Payments Greater Than $10,000[1]	Increase of 10% or More in Overall Payment Rates 1995-2000	Bonus or Special Payment Rate for Practice in Rural or Medically Underserved Area
	Physicians	*	**1.2**	**No**	**No**
	NPs	*	**3.6**	**No**	**No**
	Dentists	**36.0**	**18.0**	**No**	**No**
	# of Enrolled Pharmacies				**844**
	% Change in Physician Fees (All Services), 1993-1998				**26.41**
	Recent State-Mandated Payment Increases				**None**
Medicare	# Active Practitioners Enrolled (2000)				**8,915**
	% Practitioners who Accept Fee as Full Payment (2001)				**88.4**

[1] Generally seen as an indicator of significant participation in the Medicaid program.
[2] Denominator number from HRSA State Health Workforce Profile, December 2000.
* Numerator data for physicians and nurse practitioners from state Medicaid agencies were unusable: many professionals were apparently double-counted, perhaps due to varying participation in different health plans.

Sources: State Medicaid programs, Norton and Zuckerman "Trends", HPTS, AARP.

Less than 2% of dentists enrolled in Medicaid in Colorado receive payments of more than $10,000 annually. There have been no payment rate increases for any of the professions of greater than 10% in the five years.

II. HEALTH PROFESSIONS EDUCATION

State efforts to help ensure an adequate supply of health professionals can be understood in part by examining data on the state's health professions education programs–counts of recent students and graduates, amounts of state resources invested in education, and other factors. State officials can gauge how well these providers reflect the state's population by also examining how many students and graduates are state residents or minorities. Knowing to what extent states are also investing in primary care education and how many medical school graduates remain in-state to complete residencies in family medicine is also important.

Table II-a.

UNDERGRADUATE MEDICAL EDUCATION			
# of Medical Schools *(Allopathic and Osteopathic)*	**1**	Public Schools	**1**
		Private Schools	**0**
		Osteopathic Schools	**0**
# of Medical Students *(Allopathic and Osteopathic)*	1997-1998	**526**	
	1999-2000	**524**	
# Medical Students per 100,000 Population[1]	1999-2000	**12.18**	
% Newly Entering Students (*Allopathic)* who are State Residents, 1999-2000		**87.7**	
Requirement for Students in Some/All Medical Schools to Complete a *Primary Care Clerkship*	By the State	**No**	
	By Majority of Schools	**Yes**	
# of Medical School Graduates *(Allopathic and Osteopathic)*	1998	**120**	
	2000	**125**	
# Medical School Graduates per 100,000 Population[1]	2000	**2.91**	
% Graduates *(Allopathic)* who are Underrepresented Minorities, 1994-1998		**9.9** (10.5 U.S.)	
% 1987-1993 Medical School Graduates *(Allopathic)* Entering Generalist Specialties		**33.8** (26.7 U.S.)	
State Appropriations to Medical Schools *(Allopathic and Osteopathic)*, 1999-2000	Total	**$18.35 million**	
	Per Student	**$35,021**	

[1] Denominator number is state population from 2000 U.S. Census.

Sources: AAMC, AAMC Institutional Goals Ranking Report, AACOM, Barzansky et al. "Educational Programs", State higher education coordinating boards.

Almost 90% of newly entering medical students in Colorado are state residents. Over one-third of the state's medical school graduates entered generalist specialties from 1987-1993.

Table II-b.

GRADUATE MEDICAL EDUCATION (GME)		
# of Residency Programs *(Allopathic and Osteopathic)*, 1999-2000[1]		**80**
# of Physician Residents *(Allopathic and Osteopathic)*, 1999-2000[1]		**987**
# Residents Per 100,000 Population, 1999-2000		**23**
% Allopathic Residents from In-State Medical School, 1999-2000		**18.8**
% Residents who are International[2] Medical Graduates, 1999-2000		**5.1** (26.4 U.S.)
Requirement to Offer Some or All Residents a *Rural Rotation*	By the State	**Yes**
	By Most Primary Care Residencies	**Yes**
State Appropriations for Graduate Medical Education, 2001-2002[4,5]	Total	**$2.37 million**
	Per Resident	**$11,849**
Medicaid Payments for Graduate Medical Education, 1998[3]		**$8.0 million**
	Payments as % of Total Medicaid Hospital Expenditures	**4.0** (7.4 U.S.)
	Payments Made Directly to Teaching Programs Under Capitated Managed Care	**Yes**
	Payments Linked to State Workforce Goals/ Goals of Improved Accountability	**No**
Medicare Payments for Graduate Medical Education, 1998[3]		**$34.2 million**

[1] Includes estimated number of osteopathic residencies/residents not accredited by the Accreditation Council for Graduate Medical Education.
[2] Does not include residents from Canada.
[3] Explicit payments for both direct and indirect GME cost.
[4] Funds largely are for graduate education.
[5] Dollar amounts refer largely to funding for family medicine training programs. However, these funds that flow directly to teaching hospitals are not necessarily earmarked by the state for graduate medical education.

Sources: AMA, AMA State-level Data, AACOM, State higher education coordinating boards, Henderson "Funding", Oliver et al. "State Variations."

Only 5% of Colorado's physician residents are international medical graduates.

Table II-c.

FAMILY MEDICINE RESIDENCY TRAINING			
# of Residency Programs, 2001	**11**	# Residencies Located in Inner City	**4**
		# Residencies Offering Rural Fellowships or Training Tracks	**2**
# of Family Medicine Residents, 1999-2000			**200**
# Family Medicine Residents per 100,000 Population, 1999-2000[1]			**4.6**
% Graduates *(from state's Allopathic and Osteopathic medical schools)* who were First Year Residents in Family Medicine, 1995-2000			**20.2** (14.8 U.S.)
% Graduates *(from state's Allopathic medical schools)* Choosing a Family Medicine Residency Program Who Entered an In-State Family Medicine Residency, 1995-2000			**52.0** (48.1 U.S.)
State Appropriations for Family Medicine Training,[2] 2001-2002		Total	**$2.37 million**
		Per Residency Slot	**$11,849**

[1] Denominator number is state population from 2000 U.S. Census.
[2] Dollar amounts refer largely to funding family medicine training programs. However, these funds that flow directly to teaching hospitals are not necessarily earmarked by the state for graduate medical education.

Sources: AAFP, AAFP State Legislation, Kahn et al., Pugno et al. and Schmittling et al. "Entry of U.S. Medical School Graduates".

Colorado has a higher percentage of graduates who were first year residents in family medicine than the U.S. as a whole. Over half of Colorado graduates who chose an in-state family residency program between 1995-2000, entered an in-state family medicine residency.

Table II-d.

NURSING EDUCATION				
# of Nursing Schools	**17**	Public Schools		**16**
		Private Schools		**1**
# of Nursing Students[1] 1998-2000	**2257**	# Associate Degree, 1998-1999		**572**
		# Baccalaureate Degree	1998-1999	**1148**
			1999-2000	**1056**
		# Masters Degree	1998-1999	**378**
			1999-2000	**381**
		# Doctoral Degree	1998-1999	**159**
			1999-2000	**152**
	# Per 100,000 population[2]			**52.5**
# of Nursing School Graduates[1] 1999-2000	**907**	# Associate Degree, 1999		**324**
		# Baccalaureate Degree	1999	**415**
			2000	**454**
		# Masters Degree	1999	**146**
			2000	**126**
		# Doctoral Degree	1999	**22**
			2000	**44**
	# Per 100,000 population[2]			**21.1**
State Appropriations to Nursing Schools *(Baccalaureate, Masters and Doctoral)*, 1998-1999		Per Student: **$7,313** (1 school reporting)		

[1] Annual figure for Associate, Baccalaureate, Masters and Doctoral students/graduates for most recent years available.
[2] Denominator number is the state population from the 2000 U.S. Census.

Sources: NLN, AACN, State higher education coordinating boards.

Enrollment in Colorado's baccalaureate and doctoral degree nursing programs decreased slightly between 1999 and 2000. Enrollment in master's degree programs increased slightly during the same time period.

Table II-e.

PHARMACY EDUCATION			
# of Pharmacy Schools	**1**	Public Schools	**1**
		Private Schools	**0**
# of Pharmacy Students, 2000-2001	**261**	# Baccalaureate Degree	**61**
		# Doctoral Degree *(PharmD)*	**200**
	# Per 100,000 population*		**6.1**
# of Pharmacy Graduates, 2000	**102**	# Baccalaureate Degree	**102**
		# Doctoral Degree *(PharmD)*	**0**
	# Per 100,000 population*		**2.4**

* Denominator number is state population from 2000 U.S. Census.

Source: AACP.

Table II-f.

PHYSICIAN ASSISTANT EDUCATION		
# of Physician Assistant Training Programs, 2000-2001		**2**
# of Physician Assistant Program Students, 2000-2001		**93** (1 program)
# Physician Assistant Program Students per 100,000 Population[1]		**2.2**
# of Physician Assistant Program Graduates, 2001		**26** (1 program)
# Physician Assistant Program Graduates per 100,000 Population[1]		**0.6**
State Appropriations for Physician Assistant Training Programs, 2000-2001[2]	Total	**0**
	Per Student	**0**
	As % of Total Program Revenue	**0**

[1] Denominator number is state population from 2000 U.S. Census.
[2] In general, state appropriations are not directly earmarked for these programs, but rather to their sponsoring institutions.

Sources: APAP, APAP Annual Report.

Table II-g.

DENTAL EDUCATION			
# of Dental Schools	**1**	Public Schools	**1**
		Private Schools	**0**
# of Dental Students, 2000-2001	**147**		
# Dental Students per 100,000 Population*	**3.42**		
# of Dental Graduates, 2000	**34**		
# Dental Graduates per 100,000 Population*	**0.79**		
State Appropriations to Dental Schools, 1998-1999	Per Student: **$33,794**		
	As % of Total Revenue: **38.2** (31.6 U.S.)		

* Denominator number is state population from 2000 U.S. Census.

Source: ADA.

Table II-h.

DENTAL HYGIENE EDUCATION			
# of Dental Hygiene Training Programs	**4**	Public Schools	**4**
		Private Schools	**0**
# of Dental Hygiene Program Students, 1997-1998	**145**		
# Dental Hygiene Program Students per 100,000 Population*	**3.37**		
# of Dental Hygiene Program Graduates, 1998	**52**		
# Dental Hygiene Program Graduates per 100,000 Population*	**1.21**		

* Denominator number is state population from 2000 U.S. Census.

Sources: ADHA, AMA Health Professions.

III. PHYSICIAN PRACTICE LOCATION

The following tables examine in-state physician practice location from two different vantage points: (1) of all physicians who were trained (went to medical school or received their most recent GME training) in the state between 1975 and 1995, and (2) of all physicians who are now practicing in the state, regardless of where they were trained. Complied from the American Medical Association's 1999 Physician Masterfile by Quality Resource Systems, Inc., the data importantly illustrates to what extent physician graduates practice in many of the state's small towns, using the rural-urban continuum developed by the U.S. Department of Agriculture.

PRACTICE LOCATION (URBAN/ RURAL) OF PHYSICIANS WHO RECEIVED THEIR ALLOPATHIC MEDICAL SCHOOL TRAINING IN COLORADO BETWEEN 1975 AND 1995.

Table III-a.

COLORADO		
Number of physicians who were trained in CO and who are now practicing in CO **as a percentage of all physicians practicing in CO**.		**18.94**
Number of physicians who were trained in CO and are practicing in CO, **by practice location** (metro code[1]), **as a percentage of all physicians practicing in CO**.	#00	20.34
	#01	21.37
	#02	11.80
	#03	17.89
	#04	0.00
	#05	25.16
	#06	13.10
	#07	16.46
	#08	31.25
	#09	15.79
Number of physicians who were trained in CO and who are now practicing in CO **as a percentage of all physicians who were trained in CO**.		**45.32**
Number of physicians who were trained in CO and are practicing in CO, **by practice location** (metro code[1]), **as a percentage of all physicians trained in CO**.	#00	56.17
	#01	51.02
	#02	17.96
	#03	41.37
	#04	0.00
	#05	31.45
	#06	28.95
	#07	57.63
	#08	55.56
	#09	66.67

[1] 1995 Rural/Urban Continuum Codes for Metro and Nonmetro Counties. Margaret A. Butler and Calvin L. Beale. Agriculture and Rural Economy Division, Economic Research Service, U.S. Department of Agriculture.

Codes # 00-03 indicate metropolitan counties:
00: Central counties of metro areas of 1 million or more
01: Fringe counties of metro areas of 1 million or more
02: Counties with metro areas of 250,000 - 1 million
03: Counties in metro areas of less than 250,000
NA: Not Applicable; no counties in the state are in the R/U Continuum Code

Codes # 04-09 indicate non-metropolitan counties:
04: Urban population of 20,000 or more, adjacent to metro area
05: Urban population of 20,000 or more, not adjacent to metro area
06: Urban population of 2,500-19,999, adjacent to metro area
07: Urban population of 2,500-19,999, not adjacent to metro area
08: Completely rural (no place w population > 2,500), adjacent to metro area
09: Completely rural (no place w population > 2,500), not adjacent to metro area

PRACTICE LOCATION (URBAN/RURAL) OF PHYSICIANS WHO RECEIVED THEIR MOST RECENT GME TRAINING IN COLORADO BETWEEN 1978 AND 1998.

Table III-b.

COLORADO		
Number of physicians who received their most recent GME training in CO and who are now practicing in CO **as a percentage of all physicians practicing in CO**.		**40.78**
Number of physicians who received their most recent GME training in CO and are practicing in CO, **by practice location** (metro code[1]), **as a percentage of all physicians practicing in CO**.	#00	48.90
	#01	46.61
	#02	14.73
	#03	28.69
	#04	0.00
	#05	35.06
	#06	25.30
	#07	29.91
	#08	46.67
	#09	31.58
Number of physicians who received their most recent GME training in CO and who are now practicing in CO **as a percentage of all physicians who were trained in CO**.		**47.59**
Number of physicians who received their most recent GME training in CO and are practicing in CO, **by practice location** (metro code[1]), **as a percentage of all physicians trained in CO**.	#00	62.34
	#01	50.93
	#02	10.80
	#03	37.68
	#04	0.00
	#05	30.35
	#06	20.19
	#07	60.09
	#08	77.78
	#09	68.57

[1] 1995 Rural/Urban Continuum Codes for Metro and Nonmetro Counties. Margaret A. Butler and Calvin L. Beale. Agriculture and Rural Economy Division, Economic Research Service, U.S. Department of Agriculture.

Codes # 00-03 indicate metropolitan counties:
00: Central counties of metro areas of 1 million or more
01: Fringe counties of metro areas of 1 million or more
02: Counties with metro areas of 250,000 - 1 million
03: Counties in metro areas of less than 250,000
Codes # 04-09 indicate non-metropolitan counties:
04: Urban population of 20,000 or more, adjacent to metro area
05: Urban population of 20,000 or more, not adjacent to metro area
06: Urban population of 2,500-19,999, adjacent to metro area
07: Urban population of 2,500-19,999, not adjacent to metro area
08: Completely rural (no place w population > 2,500), adjacent to metro area
09: Completely rural (no place w population > 2,500), not adjacent to metro area
NA: Not Applicable; no counties in the state are in the R/U Continuum Code.

IV. LICENSURE AND REGULATION OF PRACTICE

States are responsible for regulating the practice of health professions by licensing each provider, determining the scope of practice of each provider type and developing practice guidelines for each profession. The tables below illustrate the licensure requirements for each of the health professions covered in this study as well as additional information on recent expansions in scope of practice or other novel regulatory measures taken by the state.

Table IV-a.

PHYSICIANS	
LICENSURE REQUIREMENTS	Graduation from medical school, passage of nationally recognized exams, satisfactory completion of postgraduate education, and submission of reference letters from previous practice locations.
LICENSURE REQUIREMENTS: **INTERSTATE TELE-CONSULTATION**	**Full License**. (through statue), though limited licenses can be issued to applicants invited by the United States Olympic Committee to provide medical services at the Olympic training center or by hospital administrators to provide medical services relative to the evaluation and treatment of children as potential patients, patients, or out-patients of Shriners hospitals for children.
STATE MANDATES INDIVIDUAL PROFESSION PROFILES TO BE PUBLICLY ACCESSIBLE	No.

Sources: State licensing board, HPTS.

Table IV-b.

PHYSICIAN ASSISTANTS	
LICENSURE REQUIREMENTS	Graduation from a National Commission on Certification of Physician Assistants (NCCPA) approved physician assistant program; Verified practice history; Passage of the NCCPA National Board Exam.
RECENT STATE MANDATED EXPANSIONS IN SCOPE OF PRACTICE	*PRESCRIPTIVE AUTHORITY* **Yes.** Can prescribe controlled (Schedules II-V) and non-controlled substances using supervising physician's forms. All drugs dispensed must be unit doses prepackaged by pharmacist or physician. PA prescribing controlled substances must be registered with Drug Enforcement Agency (DEA). *PHYSICIAN SUPERVISION* PA must practice with personal and responsible supervision of physician. If the physician regularly practices in the hospital or if hospital is located in a health professional shortage area, PA can practice without physician present but physician must review medical records every 2 working days. In other settings, medical records must be reviewed and signed within 7 working days. Waivers may be granted if the physician assistant is located in an underserved or rural area distant form the physician supervisor. All such waivers shall be in the sole discretion of the Board.

Source: *State licensing board*

.**Table IV-c.**

NURSES	
LICENSURE REQUIREMENTS	**Registered Nurses (RNs)** *By endorsement.* Requirements: Graduation from an approved school of professional nursing, a passing score on the National Council Licensing Examination (NCLEX) for RNs since 1989, and a current, active Registered Nurse license in another state. *By examination:* Requirements: Graduation from an approved school of professional nursing, passing score on NCLEX. **Advanced Practice Nurses (APNs)** CNMs must meet the standards for education and certification established by the American College of Nurse- Midwives (ACNM). CRNAs must complete a program accredited by the American Association of Nurse Anesthetists' (AANA) Council on Accreditation of Nurse Anesthesia Educational Program and pass the national certification examination as administered by the AANA Council on Certification of Nurse Anesthetists. NPs must either (1) complete a nationally accredited educational program for Nurse Practitioners or (2) pass a national advanced practice certification examination. **Licensed Practical Nurses (LPNs)** Graduation from an approved school of practical nursing; A passing score on the National Council Licensing Examination for PNs.
LICENSURE REQUIREMENTS: *FOREIGN-TRAINED NURSES*	Must provide a certificate from the Commission of Foreign Nursing Schools (CGFNS). In order to obtain a CGFNS certificate, there are three components: 1) a credentials review of education transcripts, and licensure and experience in other country to determine appropriate level of nursing; 2) pass the Test of English as a Foreign Language (TOEFL); 3) pass certification exam which determines the probability of being able to pass the RN licensure exam.
LICENSURE REQUIREMENTS: *INTERSTATE TELE-CONSULTATION*	**Full License.**
RECENT STATE MANDATED EXPANSIONS IN SCOPE OF PRACTICE	*PRESCRIPTIVE AUTHORITY* **Yes.** Advanced practice nurses with prescriptive authority may obtain, possess and administer medications that are within the limits of the nurse's scope of practice. *PHYSICIAN SUPERVISION* Advance practice nurses are required to enter into a "collaborative agreement" with a Colorado licensed physician for the purposes of prescriptive authority.
RECENT STATE REQUIREMENTS TO IMPROVE WORKING CONDITIONS IN CERTAIN INSTITUTIONS	No

STATE MANDATES INDIVIDUAL PROFESSION PROFILES TO BE PUBLICLY ACCESSIBLE	No

Sources: State licensing board, AANA, ACNM, Pearson "Annual Legislative Update", HPTS.

Table IV-d.

DENTISTS	
LICENSURE REQUIREMENTS	Graduation from an accredited dental school or college; Passing scores on national and state dental examinations.
LICENSURE REQUIREMENTS: *INTERSTATE TELE-CONSULTATION*	Full License. Though exceptions are made for the practice of dentistry or dental hygiene by dentists or dental hygienists of other states or countries while appearing in programs of dental education or research at the invitation of any group of licensed dentists or dental hygienists in this state who are in good standing.

Source: State licensing board.

Table IV-e.

PHARMACISTS	
LICENSURE REQUIREMENTS	North American Pharmacist Licensure Examination (NAPLEX) and Multi-State Pharmacy Jurisprudence Exam (MPJE), and 1,800 Colorado-approved hours of internship and graduation from an approved School of Pharmacy.
RECENT STATE MANDATED EXPANSIONS IN SCOPE OF PRACTICE	Pharmacists can provide immunizations.
STATE MANDATES INDIVIDUAL PROFESSION PROFILES TO BE PUBLICLY ACCESSIBLE	No

Source: State licensing board.

Table IV-f.

DENTAL HYGIENISTS	
LICENSURE REQUIREMENTS	Must have graduated from an accredited school and passed national exam.
RECENT STATE MANDATED EXPANSIONS IN SCOPE OF PRACTICE	*PRESCRIPTIVE AUTHORITY* No. *DENTIST SUPERVISION* Licensed dental hygienists can practice independently. Hygienists may practice without the supervision of a dentist and may be the proprietor of an establishment where supervised or unsupervised dental hygiene is performed and may purchase, own, or lease equipment necessary to perform supervised or unsupervised dental hygiene.

Source: State licensing board, ADHA.

Glossary of Acronyms

CNM: Certified nurse midwife.
CRNA: Certified registered nurse anesthetist.
NP: Nurse practitioner.

V. IMPROVING THE PRACTICE ENVIRONMENT

States have the challenge of not only helping to create an adequate supply of health professionals in the state, but also ensuring that those health professionals are distributed evenly throughout the state. Various programs and incentives are used by states to encourage providers to practice in rural and other underserved areas. The tables in this section describe Colorado's programs as well as the perceived effectiveness of these programs.

RECRUITMENT/ RETENTION INITIATIVES

Table V-a.

INITIATIVE	In Use	Perceived or Known Impact (1= high, 5= low)	Health Professions Affected					
			Physicians	Nurses	Pharmacists	Dentists	Dental Hygienists	Physician Assistants
FOCUSED ADMISSIONS / RECRUITMENT OF STUDENTS FROM RURAL OR UNDERSERVED AREAS	Yes	3	X					
SUPPORT FOR HEALTH PROFESSIONS EDUCATION (stipends, preceptorships) IN UNDERSERVED AREAS	Yes	4	X					
RECRUITMENT / PLACEMENT PROGRAMS FOR HEALTH PROFESSIONALS	Yes	3	X	X	X	X	X	X
PRACTICE DEVELOPMENT SUBSIDIES (i.e., start-up grants)	No							
MALPRACTICE PREMIUM SUBSIDIES	No							
TAX CREDITS FOR RURAL / UNDERSERVED AREA PRACTICE	Yes	1	X					
PROVIDING SUBSTITUTE PHYSICIANS (*locum tenens* support)	No							
MALPRACTICE IMMUNITY FOR PROVIDING VOLUNTARY OR FREE CARE	Yes	3	X					
PAYMENT BONUSES / OTHER INCENTIVES BY MEDICAID OR OTHER INSURANCE CARRIERS	No							
MEDICAID REIMBURSEMENT OF TELEMEDICINE	No							

***Source*: State health officials.**

Most of Colorado's workforce recruitment and retention efforts in rural or underserved areas are focused on physicians. The state does however have placement programs for all of the health professions.

LOAN REPAYMENT/ SCHOLARSHIP PROGRAMS *

Table V-b.

Program Type	Number of Programs	Number of Annual Participants	Average Retention Rate	Eligible Health Professions					
				Physicians	Nurses	Pharmacists	Dentists	Dental Hygienists	Physician Assistants
LOAN REPAYMENT	1	50	94%	X	X		X		X
SCHOLARSHIP	0	N/A	N/A						

*** Includes only state-funded programs which require a service obligation in an underserved area. (NHSC state loan repayment programs are included since the state provides funding.)**

Source: State health officials.

WORKFORCE PLANNING ACTIVITIES*

Table V-c.

ACTIVITY	In Use	Health Professions Affected					
		Physicians	Nurses	Pharmacists	Dentists	Dental Hygienists	Physician Assistants
COLLECTION / ANALYSIS OF PROFESSIONS SUPPLY DATA: FROM *PRIMARY* SOURCES (e.g., licensure renewal process; other survey research)	**Yes**	**X**	**X**				
FROM *SECONDARY* SOURCES (e.g., state-based professional trade associations)	**Yes**	**X**					
PRODUCTION OF RECENT STUDIES OR REPORTS THAT DOCUMENT / EVALUATE THE SUPPLY, DISTRIBUTION, EDUCATION OR REGULATION OF HEALTH PROFESSIONS	**Yes**	**X**	**X**				
RECENT REGULATORY ACTIONS INTENDED TO REQUIRE OR ENCOURAGE COORDINATION OF POLICIES AND DATA COLLECTION AMONG HEALTH PROFESSIONS GROUPS OR LICENSING BOARDS	**No**						

* One state health official supplied these responses. Therefore, data may be limited and may not accurately reflect all current workforce-planning activities in the state.

Colorado collects and analyzes supply data for only physicians and nurses. There have been no recent regulatory actions by the state intended to encourage coordination of policies and data collection among health professional groups or licensing boards.

VI. EXEMPLARY WORKFORCE LEGISLATION, PROGRAMS AND STUDIES

The following abstracts describe several of Colorado's recent endeavors to understand and describe the status of the state's current health care workforce.

Legislation and Programs

HB-1031 (2002)
Amends the licensure requirement for retired nurses wishing to obtain a retired volunteer license. Removes the provision that states nurses must be retired for at least four years before obtaining a retired volunteer license.

HB-1023 (2001)
Establishes a reduced-rate license for retired nurses. The retired volunteer nurse license allows the nurse to engage in volunteer nursing tasks within the scope of practice for which a nurse may not accept compensation.

HB-1257 (2001)
Amends the allowable tax credit for health care professionals practicing in rural health care professional shortage areas to include when the taxpayer is 1) practicing at least 20 hours a week, or 2) is a borrower on a student loan to an amount equal to one-third of the amount of the student loan up to the taxpayer's actual income tax liability.

HB-1282 (2001)
States that when dental hygiene services are provided to children by a licensed dental hygienist who is providing dental hygiene services without the supervision of a licensed dentist, the executive director of the local health department may authorize reimbursement for said services.

S-164 (2001)
Expands the SCHIP program to include dental services and uses tobacco settlement revenue to fund a dental loan repayment program.

S-224 (2001)
Revises Medicaid statute to allow individuals in rural areas to receive medical services from a health care provider without person-to-person contact with the provider.

Colorado Center of Excellence for Nursing
HealthONE Alliance, a non-profit partner in the Denver Hospital System, plans to provide $250,000 to create a center of excellence for nursing. The focus of the center will be to assist in insuring the supply and competency of nurse professionals in Colorado. The center hopes to be a clearinghouse for workforce data, best practices and career development information.

Studies

Improving the Work Environment and Respect for Acute Care Nurses in Colorado
Healthcare Alliance Nursing Taskforce, 2001
This report states that the current nursing shortage is significant and poses a real threat to the quality of care provided by Colorado acute care hospitals, long term care facilities, ambulatory care and home health providers. According to the report, the crisis is magnified by 1) the increased acuity of hospital patients; 2) an increased need for hospitalization due to an aging population; 3) an average age of 40 plus years for the current workforce; 4) a decrease in nursing school enrollments; and 5) a greater sense of dissatisfaction by nurses regarding the work environment. The report focuses on attitudes towards nursing issues by management and on nurse-physician relationships.

Mission Possible? Maintaining the Safety Net in Urban and Rural Colorado
National Health Policy Forum, Site Visit Report, August 2001
The National Health Policy Forum of Washington, DC took 22 federal congressional and executive health staff to Colorado to visit health facilities and engage in discussions on safety-net services provided by an urban integrated health system and organizations that operate in rural and frontier parts of eastern Colorado. Some of the key points of the discussions were:

- Even those working daily with urban and rural /frontier safety net providers have a difficult time in defining and conceptualizing them.
- Major challenges facing Denver Health include the concentration of services for vulnerable populations to a few providers, rising costs, limited revenue streams, assessing capital financing, workforce shortages, and federal and state regulatory requirements.
- In states with a limited Medicaid program, federal Medicaid disproportionate-share funding (DSH) is crucial to maintaining the safety net.
- Gaining access to specialty care is a problem in rural/frontier eastern Colorado.

Registered Nurses in Colorado: 1997 Report
Colorado Alliance of Nursing Workforce Development Opportunities, 1997
The report describes the results of a survey of all registered nurses identified by the Colorado Board of Nursing Examiners for re-licensure in 1997. The survey examined demographic characteristics, compared rural respondents to urban respondents, and looked at education level of respondents.

Physicians in Colorado: 1997 Report
University of Colorado Health Sciences Center, 1997
The report describes the results of a survey of all physicians identified by the Colorado Board of Medical Examiners for re-licensure in 1997. The report provides data on location of practice, practice specialty, Medicaid participation, and location of training and residency.

Report to the Governor's Blue Ribbon Panel on Issues in Long Term Care
Colorado Certified Nurses Assistant Survey Preliminary Results, 2000
Colorado Alliance of Nursing Workforce Development Opportunities
The report describes the results of a survey of all certified nurse assistants identified by the Colorado Board of Nursing Examiners for re-certification in 2000. The survey examined demographic, practice, and education profiles of the Certified Nurse Assistants.

Trends in the Healthcare Workforce
University of Colorado Health Sciences Center, March 2001
This report looks at workforce trends for nurses, pharmacists, dentists, physicians, dental hygienists, and physician assistants on both the national and state level. In addition to providing information on the supply and demand, distribution, and diversity of each profession, the report looks at University of Colorado Health Sciences Center initiatives and provides information about recent graduates.

HRSA State Health Workforce Profile
Bureau of Health Professions, December 2000
The State Health Workforce Profiles provide current data on the supply, demand, distribution, education and use of health care professionals in each state. Each state profile has an overview of the health status of state residents and health services within the state. In addition the profiles have breakdowns of health care employment by place of work and profession.
http://bhpr.hrsa.gov/healthworkforce/profiles/default.htm

VII. POLICY ANALYSIS

Organizations with Significant Involvement in Health Workforce Analysis/Development

- **University of Colorado Health Sciences Center:**
  - **Colorado Area Health Education Center (AHEC) Program**
  - **Colorado Commission on Family Medicine and affiliated residency programs**
- **HealthONE Alliance**
- **Colorado Rural Health Center / Colorado Rural Recruitment and Retention Network**

Evidence of Collaboration: Minimal (largely associated with workforce data collection and profession recruitment and retention)

Colorado's largely rural population is rapidly becoming urban. Similarly, the state's minority population is growing quickly. The percent of children without health insurance is rising and is now above the national average.

The percent of the population that resides in federally designated health professional shortage areas (HPSAs) remains below the U.S. average. Interestingly, the ratio of National Health Service Corps professionals per 10,000 population living in the state's HPSAs exceeds the national average, as does the state's number of physicians, nurse practitioners, dentists, and dental hygienists per 100,000 total population. Although the percent of medical school graduates who are underrepresented minorities is below the nationwide proportion, about a third of recent graduates enter generalist specialties—and a fifth enter family medicine training in particular—both proportions that exceed the U.S. average. In fact, over half of the graduates choosing a family medicine residency enter an in-state program. Colorado's family medicine residency programs routinely enjoy state funding support. A key focus of the Commission on Family Medicine, which oversees these training programs, is to address primary care workforce needs in rural and urban underserved areas. All residents of these training programs are also required to complete a rural rotation.

Despite the fact that in recent years physicians have received a significant increase in Medicaid fees, the percent enrolled in Medicaid that provide a significant level of care to this population is quite low. Also, just over a third of all practicing dentists in the state participate in Medicaid and less than 20 percent are considered significant service providers to Medicaid recipients.

Before the 2001 legislative session, the state had not recently addressed health workforce issues in a significant way. A new law in 2001 allows physicians and hospitals to establish their own networks to provide health coverage and bypass insurance companies. Also, various telemedicine services are now reimbursable under the state's Medicaid program, which states that no health benefit plan pertaining to individuals residing in counties with fewer than 150,000 population may require face-to-face provider to patient contact, but instead such care can appropriately be delivered through telemedicine if the county has the necessary technology.

Also important to improving provider availability in rural areas, the Legislature in 2001 amended the allowable tax credit for health professionals practicing in rural HPSAs to alter the rural underserved definition and expand the number of eligible health professionals to include dentists and dental hygienists. A 2002 bill would make such a tax credit permanent and would expand further the list of eligible health professionals to include registered and licensed practical nurses and pharmacists. State officials rank this

incentive as having the greatest impact in recruiting and retaining health professionals in underserved communities.

In relation, an informal coalition of various statewide health organizations called the Colorado Rural Recruitment and Retention Network (CoRRRN) was formed in the early 1990s to discuss and collaborative on effective strategies to address rural workforce shortages. One of CoRRRN's concerns is the lack of reliable and commonly available data on the supply and demand for various health professions in the state. Previous efforts to establish statewide workforce databases have failed for various reasons. Meanwhile, the Colorado AHEC in collaboration with the Department of Regulatory Agencies (which oversees the professions licensing boards) has periodically surveyed practicing physicians, nurses and dentists as part of the relicensure process.

Health workforce shortage issues are now an important concern for the legislature. Health care in general is likely to be debated during the 2002 election for governor. However, growing fiscal constraints are likely to limit the state's actions to address the workforce shortage issue in the near term. A reduction in state spending in 2002 is expected, as required by TABOR—the Taxpayer's Bill of Rights added to the state Constitution in 1992. TABOR limits increases in the state's revenue to the annual inflation rate plus the percentage change in the state population. The TABOR revenue limit has been exceeded by the state since 1997 and under TABOR, revenue excesses are to be refunded to taxpayers. Because of TABOR, efforts to raise Medicaid provider payment rates will be severely constrained.

Nursing

As in other states, Colorado is experiencing a growing shortage of practicing nurses in both its rural and urban areas. Numbers of graduating nurses appear to be flat or declining. Moreover, recent studies by the Colorado AHEC program report increased nurse vacancy rates in hospitals higher than the national average.

Beginning in 1999, HealthONE Alliance, a non-profit partner in metro Denver's largest hospital system, convened a collaborative group of statewide health care stakeholders, including the state hospital and nursing associations, to examine the state's nursing workforce supply. In 2001, the Alliance agreed to fund the creation of a statewide nursing center of excellence that would serve as a central clearinghouse for workforce data, best practices and career development information. There remains some debate as to where the center should be located.

Other major activities include the following:

- The hospital association is engaged in addressing workforce issues through the creation of an internal workforce council that focuses on profession recruitment and retention, education and workplace issues.
- The Colorado AHEC has developed the Colorado Alliance of Nursing Workforce Development Opportunities (CANDO) to develop regional and statewide employer-educator relationships that foster a better understanding of future workforce needs and opportunities, develop strategies to improve basic nursing skills, and establish systems to gather ongoing dependable data on current workforce capacities and anticipate future needs.
- In the summer/fall of 2001, a legislative interim committee convened to examine the state's nursing shortage and ultimately focused on recruitment/retention, financial development, faculty development and workforce data issues. Earlier, the Legislature enacted a law establishing a reduced rate license fee for retired nurses to encourage more nurses to return to work.
- The state nurses association is interested in having a study on nursing shortages commissioned by the Legislature that would focus on education/pipeline issues associated with training future nurses and would be funded by nurse re-licensure fees. The association is also interested in having the Legislature address mandatory overtime and other issues not addressed by the interim committee.

- The University of Colorado convened a health workforce summit in December 2001 where various stakeholders and policymakers debated and discussed health workforce education issues.
- In early 2002, the Caring for Colorado Foundation launched a five-year, $5 million statewide initiative to improve the accessibility of dental care by focusing on strategies to attract more dentists to the state.

Dentists

Recent surveys of practicing dentists and dental hygienists indicate a growing number of dentists are nearing retirement, particularly in rural communities. At least 11 counties in the state now lack a dentist. Significant attention has been given in recent years to addressing rising concerns about a lack of access to dental care in Colorado, particularly in the state's rural and underserved communities.

- In 2000, the Legislature enacted legislation to expand the state children's health insurance program by including dental services and use of tobacco settlement revenue to fund the program. The expansion of services was made contingent upon there being a sufficient supply of dentists.
- Because there were an insufficient number of dentists, the Legislature in 2001 also created a dental loan repayment program to encourage and recruit new dentists to provide service to underserved populations. An appropriation of $200,000 in tobacco settlement funds was made to fund the new program beginning in April 2002.
- As noted earlier, the Legislature in 2001 also amended the allowable tax credit for health professionals practicing in rural HPSAs to include dentists and dental hygienists.
- Also in 2001, a law was enacted that authorizes services provided by hygienists to children without the supervision of a licensed dentist to be covered by Medicaid and with payment to be made directly to the hygienist. Such independent practice of a hygienist has been allowed under their practice act for about 15 years. However, few hygienists reportedly practice independently, and few are willing to participate in the state's "chopper-topper" program that transports dental providers to schools to identify children in need of special services, including sealants. The hygienist practice act is due to sunset in 2003, and officials of the state dental association have expressed an interest in trying to limit certain unsupervised hygienist activities, such as the provision of sealants.

In addition to incremental increases in Medicaid payment rates a few years ago, the dental association is asking the Legislature to raise rates to at least the 75th percentile of charges—closer to what dentists say is their breakeven level.

Pharmacists

Although there are anecdotal reports of shortages of pharmacists, Colorado does not appear to have a significant problem with supply, particularly in hospitals. However, there are reports that pharmacists in Colorado and certain other states may stop filling prescriptions for Medicaid beneficiaries and may reduce hours or close stores if the state implements proposed cuts in Medicaid reimbursement rates for pharmacies. The FY2002 budget submitted to the Legislature would cut payments by increasing the percentage subtracted from the average wholesale price and reducing the per-unit prescription fee.

Colorado and other states are considering making cuts in such payments for prescriptions that make up a growing proportion of Medicaid program costs and contribute to current budget deficits in many states. The move to make reductions has been prompted in part by a recent U.S. Department of Health and Human Services Office of Inspector General report that found that states were overpaying pharmacies by more than $1 billion annually and recommending that states reduce Medicaid pharmacy payments by about 10 percent.

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